laminates

DELMAT POLYESTER (GPO-3) 68200

- ►Classified GPO-3 according to NEMA LI 1
- ►Good mechanical properties at high temperatures (Temperature Index 155)
- ►Flame retardant above 2,4mm thickness
- ►Halogen free
- ►Easy to cold punch up to 6mm

General description
Delmat Polyester (GPO-3) 68200 are laminates based on glass mat and polyester resin systems.

RoHS Directive
Hazardous products listed in the EU-directive 2002/95/CE (ROHS-directive), §4 section 1, are not used as ingredients in this material.

Application
Switchboards
LV- and HV circuit breakers
Phase barriers
Switchboard bottom plates
Arc chute chambers panels
Connection supports
Protection panels
Insulation carriers
Cable clamps
Bus bars supports
Power electronics...

Standards
NEMA LI.1 : GPO-3
IEC 60893 : UP GM 203
NF C 26-153 : Vm P2e

Form of delivery
Sheet size : 2000 +/-10mm x 1000 +/-10mm
Thicknesses : 0,8mm to 60mm

The sheets are untrimmed. Homogeneity on a width of 13mm from the edges is not guaranteed.

This product can be delivered in machined parts according to specific drawings.

Colour
Grey, RAL 7035

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		Value	Test norm
Physical properties			
Water absorption after 24h immersion at 23°C, thickness 4mm	mg	<50	ISO 62 (method 1)
Flammability according to UL 94 (thickness > or = 2,4mm)		94 V-0	UL 94
Density	g/cm³	1.8 ± 0.1	ISO 1183 (method A)
Mechanical properties			
Edgewise notched impact strength Charpy	kJ/m²	47	ISO 179
Flexural strength at 130°C, flatwise	MPa	70	ISO 178
Tensile strength, //, at 23°C	MPa	70	ISO 527
Compressive strength //, at 23°C	MPa	160	ISO 604
Edgewise notched impact strength IZOD	kJ/m²	47	ISO 180
Flexural strength at 23°C, flatwise	MPa	130	ISO 178
Bonding strength (10mm thick)	N	4000	ASTM D 229
Modulus of elasticity in flexure at 23°C, flatwise	MPa	8000	ISO 178
Compressive strength at 23°C, flatwise	MPa	230	ISO 604
Thermal properties			
Temperature index (TI)		155	IEC 60216
Electrical properties			
Insulation resistance, as received	MOhm	10^7	IEC 60167
Edgewise breakdown voltage, step by step, in oil at 23° C after immersion 48h/50°C/water	kV	30	IEC 60243-1
Comparative tracking index - CTI		600	IEC 60112
Edgewise breakdown voltage, step by step, in oil at 90° C, as received	kV	60	IEC 60243-1
Flatwise electric strength, step by step test, in oil at 90°C	kV/mm	12	IEC 60243-1
Relative permittivity at 1 MHz		<4.5	IEC 60250
Arc resistance	s	180	ASTM D 495
Dissipation factor at 1 MHz		<0.05	IEC 60250
Insulation resistance, after 24h immersion in water at 23°C	MOhm	10^3	IEC 60167
Tracking and erosion resistance		1 B 2.5	IEC 60587

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